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ABSTRACT

The purpose of this monograph is to illustrate the implications of Public Law 94-142 on public education at the state and local levels. The first section illustrates the importance for all educators to be aware of the administrative design used in this piece of permanent legislation. The second section describes the major provisions of Public Law 94-142, including Child Identification, Personnel Development, Procedural Safeguards, and Individualized Education Program (IEP). The final section deals with how elementary industrial arts experiences can be integrated in the IEP for all handicapped children and provides instructional practices that will enable all those concerned with the education of handicapped children to best utilize the IEP. Specific features include a description of the Diagnostic Approach to Curriculum Development, a sample in IEP program form, lesson guide outline, and sample lesson guide. (YLB)

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EDUCATION OF THE HANDICAPPED AND ITS IMPLICATIONS FOR ELEMENTARY INDUSTRIAL ARTS

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1979

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. . . coordinate, on a national level, the efforts of all who contribute to the development of elementary school industrial arts and career education.

. . . publish materials relating to trends and issues in education for young children which will be of informational and practical use to the membership of the council.

. . . organize action which will facilitate the general purposes of ACESIA, including the receiving, holding and administration of funds and property.

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PREFACE

Mainstreaming has become a topic of great importance to educators because recent legislation has made it possible for all teachers to become directly involved in the education of handicapped students.

The monograph provides an overview of the legislation, describes the typical processes through which the legislation is implemented, and discussses the role of industrial arts in providing educational programs for handicapped students.

Elementary teachers, administrators, industrial arts teachers, supervisors, teacher educators, and preservice teachers will find this publication interesting and useful as they attempt to implement mainstreaming in their schools.

Dr. E. Keith Blankenbaker,
Publication Committee Chairperson

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INTRODUCTION

Professional educators are becoming increasingly aware of the issues concerning the education of handicapped children in the public schools. In the past, concerned teachers individualized instruction for the physically and mentally handicapped students in their classes. The school was justifiably proud of such accomplishments, and the system functioned with a minimum amount of confusion. However, several changes have taken place which have led to the present turmoil that the schools are now experiencing surrounding the issue of educating handicapped children.

One of the major changes is in defining the role of the school itself. Educational philosophers disagree as to the basic causes and solutions, but there is a general concensus that the schools are not able to provide an individual with all the experience required to meet the needs of a changing society. With basic changes in family structure and the increased complexity of social problems, the school is expected to 'cure' many contemporary social ills. How handicapped children fit into this dilemma is unclear, except that these broad social problems have been accused of causing or at least aggravating the learning and behavior problems that so many students exhibit.

Compounding the challenge of defining the school is the fact that more and more students now attend school. With increased urbanization and greater government intervention, policy makers have been able to approach the goal of bringing all school-age children into the school. Many of the children who somehow avoided school in the past are now being brought to the schoolhouse door in search of an appropriate education. Many of these children previously denied a free appropriate education are physically and/or mentally handicapped.

Schools designed special classes (as funds permitted) for this group, and considered such classes a privilege. These special classes filled a need, and the staff had special training experiences for working with handicapped children.

This process continued, with special education emerging as a major force in education. Special classes continued to proliferate, and many new teachers entered this growing area of employment. Special education students were being separated into these special classes and were withdrawn more and more from the school society.

Then, the field of special education became self-critical. Segregating mildly handicapped students in self-contained classes was questioned (Dunn, 1968). A basic debate over spesial education instructional methods, and even the very efficacy of special education, was intensified and still continues. Various subgroups of professionals suggested that the proliferation of learning disabilities represented the schools' failures and not bonafide handicapping conditions.

The special educators, looking for a solution to the problem of educating the handicapped, examined the possibility of 'mainstreaming'. Handicapped students were placed in regular (e.g. elementary) classes, often without the individual-child planning and support that such a venture required. The working partnership between special and regular educators was often given only lip service. Since teachers seldom had the opportunity to communicate or consult during the school day, due to classroom assign-

ments, the probability of bridging the communication gap was all the more serious. Misunderstandings about the 'proper practice' flourished.

Concomitant with the major upheaval in professional practices in education handicapped children, a legal revolution (Abeson, 1974) in the schools was taking place. Parents of the most severly handicapped children, who were still excluded from free public education, were winning an education for their children in the courts (Abeson and Bolick, 1974). The courts were followed by state legislatures, who passed mandates to bring more and more handicapped children into the public education system, and regulations specifying procedures to guarantee parental rights became more aggressive and specific. Parent and professional organizations became sophisticated lobbyists. Special education appropriations rose faster than support for almost any other program in state and local budgets. A backlash against the paperwork, cost, and legal entanglements began to develop against special education services, but the basic civil right of a free, appropriate public education for all handicapped children prevailed in the courts, state legislatures, Congress, and most importantly, in the intent of professional educators.

With this complicated struggle between problems and ideals, educators are concerned about actually making appropriate education for handicapped children a geniune reality. Interestingly enough, some of the specifics in a relatively recent piece of federal legislation (Public Law 94-142) offer promise and sound guidelines for implementing both appropriate education and civil rights for handicapped children in our schools.

Even before Public Law 94-142, public policy had established the right of handicapped children to a free appropriate public education through a host of court decisions and state laws (Weintraub et al 1976). The best ideas from these early special education laws were incorporated into Public Law 94-142 when it was enacted in 1975. Public policy was then established on a national level; standards that schools must follow in providing this free appropriate public education to all handicapped children.

The purpose of this monograph is to illustrate for the reader the implications of Public Law 94-142 on public education at the state and local levels. The first section illustrates the importance for all educators to be aware of the administrative design used in this piece of permanent legislation. The second section of the monograph will describe the major provisions of Public Law 94-142, including Child Identification, Personnel Development, Procedural Safeguards and Individualized Education Program (IEP). The final section will deal with how elementary industrial arts experiences can be integrated into the IEP for all handicapped children, and will provide instructional practices that will enable all those concerned with the education of handicapped children to best utilize the IEP.

HOW THE ACT IS ADMINISTERED

It is important for all educators to know that the Education of the Handicapped Act has enough 'muscle' in its administrative design to cause the Act to be implemented by every public education agency in the country. First, the United States Office of Education has been given the money and the authority to require states, through the state education agencies, to meet the standards specified in the law. Secondly, these state education agenices must ensure full compliance with the Act in order to receive the hundreds of millions of dollars appropriated annually under the Act. Finally, local education agencies and other public schools must comply with all of the statutory standards in order to receive their federal funds under the Act.

These funds are administered by a detailed set of written assurances made by local education agencies to state education agencies, and by state education agencies to the federal government. For example, a local public school district writes an application to the state department of education asking for Public Law 94-142 monies. This application contains a detailed set of assurances and procedures which are promises to follow the provisions specified in the Act (these provisions are described below). The state department of education receives the monies to hand out only after submitting a state plan which also makes this full set of promises on behalf of the state as a whole. The Governor, the State Attorney General, and the Chief State School Officer must sign the state plan, and public hearings must be held before the plan can be submitted to the federal government. State plans and local agency applications are public documents.

The United States Office of Education conducts site reviews in each state to make sure that all of the assurances in the state plan are kept, and will withhold funds if noncompliance is evident. Likewise, state departments of education must monitor local public schools and enforce the law.

Even if a state or local district chose not to accept this federal money, it would have to follow the essential standards contained in Public Law 94-142, according to Section 504 of Public Law 93-112, case law, and most state law. For example, a governmental body violating of the handicapped rights, under Section 504, could lose all Health, Education and Welfare funding from the office of Civil Rights action.

Two positive points regarding this powerful law have already emerged. Congress has elected to demonstrate a commitment to this Act with its initial funding, and innovative and promising provisions such as the individualized education program are being considered for adoption by all of education.

An underlying point here is that, unlike educational 'fads', free appropriate public education for handicapped children will not go away in two years. Parents of handicapped children and other advocates have established a firm civil right in this regard—a civil right which cannot be taken away. It is important to emphasize that these education assurances to children and their parents cannot be considered another education trend and no longer can be viewed as a mere movement. Public Law 94-142 mandates these assurances, and their impact will modify educational traditions, existing services and sanctities to a greater extent than any other recent educational phenomenon.

MAJOR PROVISIONS OF THE LAW

Child Identification

An essential part of the new national policy requiring free appropriate public education is the requirement that all handicapped children be located, identified, and evaluated so as to determine their need for special education. 'Child Find' is usually the name given the program established by state and local education agencies which endeavors to meet this requirement. Such Child Find programs must be designed as follows:

1) All children within the state mandated age for special education must be included in the target population for the Child Find.
2) All handicapped children, regardless of the severity of their handicapped, who need special education must be identified.
3) States must ensure that a practical method is developed and implemented to determine which children are currently receiving special education and related services.
4) The Child Find effort must be active and ongoing rather than merely a one-time publicity campaign.

The federal government, through its state plan guidelines, requires that the state education agency identify the agency ultimately responsible for the statewide coordination, planning, and implementation of the Child Find effort in that state. The state education agency then may carry out this responsibility through such means as mandates to local education agencies and/or intermediate educational units (e.g., collaborative school districts) and any combination of interagency agreements. An example of an interagency agreement would be a written promise between a state education agency and a state department of mental retardation which ensures that all children within the jurisdiction of that department of mental retardation are covered by the Child Find system.

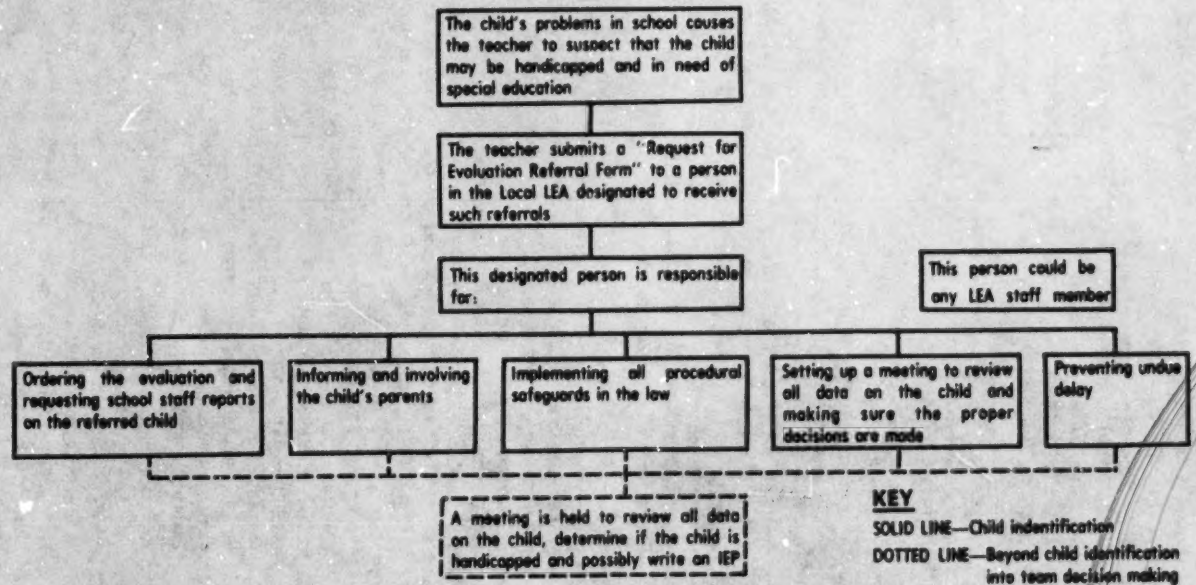
One of the problems that states and schools must properly resolve is that of the various agencies within that state with respect to Child Find and special education responsibilities. Often this is accomplished by a combination of state statutes, which geographically assign responsibilities to local boards of education and various levels of responsibility to residents and clients of other agencies.

The local education agency typically meets its Child Find obligations by establishing procedures for the identification of handicapped children within its school population and within the population of children included in the local education agency's jurisdiction, but not attending the local education agency's (LEA's) school. Examples of children of the latter type include preschool age children, children who attend private schools, children who have left or dropped out of school, and children formerly excluded from public school privileges.

Public school teachers, especially elementary school teachers, account for the vast majority of Child Find referrals. These referrals are primarily directed towards children who are attending the 'regular classes' in the elementary schools. The 'regular' class teacher supects a problem in the child's performance and/or behavior and then directs this information by means of a 'request for evaluation' form. This request for evaluation form is submitted to the person(s) designated by the LEA to receive and

FIGURE 1

CHILD IDENTIFICATION PROCEDURES


The child's problems in school causes the teacher to suspect that the child may be handicapped and in need of special education
The teacher submits a "Request for Evaluation Referral Form" to a person in the Local LEA designated to receive such referrals
This designated person is responsible for:
This person could be any LEA staff member
Ordering the evaluation and requesting school staff reports on the referred child
Informing and involving the child's parents
Implementing all procedural safeguards in the law
Setting up a meeting to review all data on the child and making sure the proper decisions are made
Preventing undue delay
A meeting is held to review all data on the child, determine if the child is handicapped and possibly write an IEP
KEY
SOLID LINE—Child indentification
DOTTED LINE—Beyond child identification into team decision making

monitor Child Find referrals for evaluation. The professional role of this person is typically a special educator, related services professional, or an administrator with the authority to follow through and monitor the progress of the request for evaluation.

Two areas that are discussed more throughly in other sections of the monograph are vital to successful and legal Child Find operation:

1) Personnel development for all school staff with respect to Child Find procedures is imperative for an effective Child Find program. Training in these procedures is incorporated in the comprehensive system of personnel development mandated by Public Law 94-142. Some particular aspects of personnel development which are designed for Child Find would include: proper use of referral forms, roles and responsibilities of those involved, and through and efficient implementation of procedural safeguards.

2) Procedural safeguards are in effect as soon as a child is suspected of being handicapped for the purposes of special education law. Parental involvement and other such safeguards are designed to protect the rights of the child, the parents and the school throughout the identification and evaluation process. These procedural mechanisms are intended to balance the interests of all concerned parties as they work toward the goal of identifying all handicapped children in need of special education and related services.

Personnel Development

The personnel development requirements of Public Law 94-142 are administered through the state plan and local education agency application process. The state education agency must set forth a comprehensive system of personnel development as a chapter within the state plan required under the Act. Each local education agency must develop written personnel development procedures as a part of the LEA application for Public Law 94-142 funds. These local procedures must demonstrate a cooperation with the state plan's comprehensive system of personnel development. The following is a presentation of the procedures:

1) All public and private agencies concerned with handicapped children should have the opportunity to provide input and assist in the implementation of the comprehensive system of personnel development. The system should especially involve regular educators and work closely with the existing personnel development council or panel required by the United States Office of Education as a precondition for states' receiving training grants under the Education of the Handicapped Act.

2) A major aspect in the implementation of the system is the annual needs assessment conducted by the state education agency. Various sources, such as state education agency (SEA) monitoring data and questionnaires, should be used to ascertain present and future personnel needs as well as specifying the types of personnel.

3) The system must also describe inservice to be conducted by the state education agency as well as the local education agen-

cies. This inservice should be based upon the needs assessment and statewide priorities, yet remain flexible enough to meet the unique needs of various personnel types in each LEA and other applicable agencies. The system must provide incentives for personnel to participate in the inservice activities and must also contain methods and procedures to evaluate the effectiveness of the inservice.

4) Preservice training programs within a state must be focused and it must be demonstrated that such training programs also address needs and priorities of educating the handicapped learner.

5) Dissemination activities describing materials, programming, innovative practices, and other significant findings derived from research and demonstration projects must be a part of the system. Dissemination procedures outlined in the system should ensure that all appropriate agencies and personnel are included as dissemination recipients. A related activity should be a thorough reassessment of educational practices within the state.

6) The state education agency must develop procedures for technical assistance which complement the personnel development activities of the local education agencies. This technical assistance should be designed to address needs demonstrated through state education agency monitoring, other needs assessment results, and state priorities.

7) Finally, the state education agency must provide for a thorough and efficient evaluation of the overall comprehensive system of personnel development. It would be appropriate to utilize annual needs assessment data and a broad spectrum of agency and personnel input in this evaluation endeavor.

Procedural Safeguards

A major area of legislative concern centers around the safeguards necessary to properly identify, evaluate, and program for handicapped children. These procedural safeguards include protection in evaluation procedures, least restrictive environment procedures, confidentiality, and due process.

Evaluation and Assessment

Protection in the evaluation and assessment process are designed to ensure that all evaluations are educationally proper and nonbiased. As a minimum standard at least two methods of assessment must be used to program for a handicapped child. Tests must be validated for the population on which they are to be used, and must be administered by appropriately trained and certified staff.

Least Restrictive Environment 'As a Procedural Safeguard'

Least Restrictive Environment if often misunderstood. This provision means that, to the maximum extent appropriate, handicapped children should be educated with non handicapped children, and that special schools and special classes should be utilized as a last resort. The emphasis of the

least restrictive environment provision should be on the word appropriate As defined in Public Law 94-142, "appropriate" means an education that meets the child's unique needs as written in the IEP and which meets state standards for education. This provision is to be considered when the team of parents and educators are writing the child's IEP.

Confidentiality

As a procedural safeguard the confidentiality provisions include restrictions upon who may have access to an individual child's educational records and parents' rights with respect to obtaining records and requesting amendments to their child's records. Each local system must have a procedure which lists which personnel have legitimate reason for looking at individual student's records, and must keep a log of any person utilizing such access procedures. Local schools also must promptly comply with parental requests to view and obtain copies of their child's records. Parents may request that a school amend their child's records, and if the school does not comply, the parent may seek redress through a special due process hearing designed to hear such confidentiality disputes.

Due Process as a Procedural Safeguard

Due process provisions encompass those mechanisms that enable parents and the school to challenge educational decisions concerning identification, evaluation and placement. These mechanisms were designed to provide legitimate administrative remedies, before civil actions would be necessary, to solve disputes concerning special education decisions require formal due process, educators should be aware of the due process system used within the state. The basic federal requirement is that the state must have impartial hearing officers to conduct special education hearings. In some states, a two-stage hearing process is utilized, while others have a mediation system designed to minimize the adversial nature of most due process proceedings. Local school must inform parents of their due process rights.

Individualized Education Program (IEP)

The IEP is the most discussed part of the federal law. IEPs are not "add-on" paper requirements to satisfy regulations; rather, they are individual programs written to specify how the educational needs of each child are to be met. When properly done, the process of writing an IEP changes the way educators think about children. The writers will illustrate for the reader how an IEP is developed an implemented in the Instructional Practices of this monograph. Before educators discovered the benefit of the IEP process, education was program-centered. That is, programs were designed and then children were assigned to these established programs, he/she may not have received an appropriate public education.

The IEP changed this practice by emphasis on child-centered program development. It is important to note that IEPs must be developed by a team of parents and educators. Research by Kelly and Thebaut (1969) and Vautour and Rucker (1977) indicated that the group planning process makes better programming decisions than individuals is reaffirmed by the regulations mandating this group process. This statement was substaniated in the study by Lorge et al. (1958).

The importance of designing a sound program which meets the individual needs of a handicapped child cannot be over-stated. Remember, the special needs student has already been identified as having difficulty with the regular scope and sequence of the curriculum. During the school year, a child spends hundreds of instructional hours in educational programs. If designing this educational program requires a two or three-hour meeting, the time is well spent. As with any type of meeting, the time is wasted if decisions are already made outside of the meeting. An even more serious issue is raised when such a moot meeting is held—that is, staff and parents are not provided opportunities for genuine input in programming.

IEP Meeting Participants

Public Law 94-142 is very clear in stating that the individualized education program shall be developed in a meeting and specifies the individuals who shall attend and what the outcomes shall be. The federal law specifies the minimum number of persons to be involved in the meeting. It states that there shall be a "representative of the local educational agency or an intermediate educational unit who shall be qualified to provide or supervise the provision of specially designed instruction." This individual could be any teacher, administrator or school specialist working for the local LEA. It further states that there shall be the teacher and the parents or guardian of the child and, when appropriate, the child. The law does not state that any other individuals must be present. However, there are many other professionals that could and should be included depending upon the unique needs of the child. They could include the psychologist, educational diagnostician, school social worker, counselor, master teacher, physical or occupational therapist and vision consultant. It is important to involve only those individuals that have a direct role to play in the child's education.

How the IEP is Developed

The Chairperson: The law refers to this individual as "representative of the local education agency . . . who shall be qualified to provide or supervise the provision of, specially designed instruction." He/she should have the requisite leadership skills to chair a meeting as well as sufficient knowledge of the total system to properly coordinate the various program components of the individualized education program once it is developed. This individual should preside over the meeting and determine if all the necessary individuals are present. The chairperson also has the responsibility for seeing that all necessary assessment information and data are presented, for presenting various recommendations for programming to the parents, and for acting as spokesperson for the local or intermediate area school system. He/she should ensure that language used to describe the learner's problems and instructional practices be of such a nature that it can be understood by all committee participants.

The Teacher: The child's teacher(s) attending the IEP meetings are responsible for explaining to the parents the various instuctional strategies that will be used to accomplish the established annual goals. The teacher should explain to the parents how and why certain instructional materials and strategies were chosen over others. The teacher should become the main emissary between the school and parents.

The Parent: Public Law 94-142 clearly indicates that the child and parents have rights and the law is structed to guarantee those rights. The parent and the child, if included, should have full status at the meeting and should be provided the same courtesy as any other member of the committee. The rights of parents are clearly stated in the Law. Parents have the right to deal openly and honestly with school systems, accurately describing their child's behavior and reasonably and realistically requesting services. The parent, as an individual, may ask questions concerning how the IEP will be implemented, why a particular strategy was selected, and what the instructional alternatives are. It is important that parents have an active role in the development of the IEP. Parents should also be provided an opportunity to exercise their rights and require the system to explain the procedures used in determining the child's needs and to defend them when necessary.

Results of the Meeting: The meeting should result in an individualized educational program for the child that has been agreed upon by both parents and professionals. The IEP should include the points required by the law and others which are added by the local school district. A copy of the IEP should be available to the parents and placed in the child's file. The IEP should be available to all other professional personnel involved in delivering the educational services to the child.

Content of the IEP: The term individualized education program is an important concept which requires an explanation. Individualized means that the educational needs of a single child should be analyzed rather than those of a class or group of children. Education means a program limited to those elements of the child's education. The program represents the services which will actually be provided the child as compared to a plan that provides guidelines from which a program may subsequently be developed. Public Law 94-142 outlines the specific components of an individualized education program. They are:

> a written statement for each handicapped child developed in any meeting by a representative of the local educational agency or an intermediate educational unit who shall be qualfied to provide, or supervise the provision of, specially designed instruction to meet the unique needs of handicapped children, the teacher, the parents or guardians of such child, and, whenever appropriate, such child, which statement shall include (A) a statement of the present levels of educational performance of such child, (B) a statement of annual goals, including short-term instructional objectives, (C) a statement of the specific educational services to be provided to such child, and the extent to which such child will be able to participate in regular educational programs, (D) projected date for initiation and anticipated duration of such services, and appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether instructional objectives are being achieved.

Specifically, the statement has two major parts. The first part sets forth that the individual education program will be developed in a meeting and also specifies who will participate in the meeting.

a) A representative of the local education agency or intermediate education unit who is qualified to provide or supervise the provision of special education
b) The teacher or teacher of the child
c) The parents or guardian
d) The child, when appropriate

The second part sets forth the content of the written statement, which must include:

a) A statement of the child's present level of educational performance
b) A statement of the annual goals, including short-term instructional objectives
c) A statement of the specific educational services to be provided
d) The extent to which the child will be able to participate in regular education programs
e) The projected date for initiation and anticipated duration of such services
f) Appropriate objective criteria, evaluation procedures, and schedules for determining, on at least an annual basis, whether instructional objectives are being achieved

A sample IEP is presented in Figure 2 and attempts to illustrate how a single two-page document can be used to meet the requirements of the law. The sample IEP contains space for all the necessary information. However, it is important to note that there is no federal form for developing an IEP. This IEP will be developed for a hypothetical learner in the Instructional Practices section of this paper.

FIGURE 2

SAMPLE INDIVIDUALIZED EDUCATION PROGRAM FORM

School District _____ Date(s) of Meeting _____

Name _____
LAST FIRST MIDDLE

Persons Present | Relationship to Child

Address _____

_____
CITY STATE ZIP

Current Placement _____

Eligibility Certified _____

Period of Individualized Program _____ to _____

EVALUATION: Assessment

STRENGTHS	DEFICITS

LONG RANGE GOAL	SHORT TERM OBJECTIVES	TEACHING MATERIALS/INSTRUCTIONAL STRATEGIES

Describe the extent to which the child will participate in regular education programs. (Including physical education)

Provide justification for educational placement

Actual Placement

List the criteria, evaluating procedures, and schedule for determining whether short term objectives are met.

INSTRUCTIONAL PRACTICES

As a result of least restrictive enrvironment and IEP provisions, states and school districts are attempting to develop ways to more effectively coordinate the education of handicapped children in regular classrooms and in special education programs. "How do I identify the learner's need?" "What do I do?" and "How do I do it?" are three major questions asked by the classroom teacher faced with the challenge of working with handicapped children in a regular classroom environment.

The major reasons for referring students for special educational evaluation center around the evidence of learning, social, or emotional problems as observed by a classroom teacher. Handicapped students have difficulty learning by ordinary classroom instructional methods. These handicaps generally manifest themselves in the form of poor classroom performance by the student. Educational handicaps are often evidenced by a discrepancy between the student's actual performance ability and that expected by the school because of the scope and sequence of the curriculum. Procedural safeguards and the team approach apply in making the determination of the disability. The practice usually used to assess this discrepancy has been to evaluate learners in order to determine the nature of the problem(s) which makes it difficult for them to perform consistently within the scope and sequence of the curriculum.

Until recently, curriculum specialists have given little recognition to the needs of the learner and how the individual learns when exposed to any segment of the curriculum at a given time. Science, Social Studies, Industrial Arts, Language Arts, Mathematics and other areas of the curriculum are most frequently characterized as age-in-grade placement. Sixth grade Science, fourth grade Social Studies, fifth grade Industrial Arts and second grade Mathematics are fairly common terms for expressing the relationship of curriculum to age-in-grade placement. However, the learner with special needs is usually referred because of failure to perform at the expected grade level. Such handicapped students have difficulty meeting the demands of the curriculum for one or more reasons. A child with learning disabilities, often reading and language processing problems, lacks one or more of the prerequisite skills for successful participation in the regular school curriculum. Though not able to read adequately, such a student may be able to obtain the same information through other media. While the learner may be receiving supportive services to assist with the reading difficulty, this assistance does not demonstrate its full impact on regular classroom work because the special services are often administered in isolation from the regular curriculum experiences in which the learner participates for the greater part of the day.

The curriculum must be given careful consideration when educators are planning for the education of learners with special needs. Most of the efforts in special education have been intensive and, with few exceptions, process-based; looking at the process of learning, rather than content. Special education has made limited use of the comprehensive curriculum programs (Individually Guided Education, Science Curriculum Improvement Study, Individual Prescribed Instruction) developed for general education in the content areas. This section of the monograph will develop and approach that will illustrate how a more effective use of the com-

prehensive curriculum offerings of general education (content) can be used to enhance the learning and behavioral status (process) of the learner with special needs.

Also, an illustration of how a diagnostic approach to curriculum development can be used to increase the number of learners with special needs that will move through the regular curriculum with some degree of success is provided. This approach will assist school personnel and parents in the development of a communication system that will enable all those concerned with the progress of an individual to work on the same learning problems during the school day, as well as at home.

The program suggests ways of limiting age-in-grade placement. It places emphasis on the process of learning and the use of subject matter as a vehicle to reinforce learning. The suggested techniques address the curriculum-instruction continuum with respect to working with learners with special needs in the regular classroom and how industrial arts type activities can be used to enhance the educational process.

Diagnostic Approach To Curriculum Development (DACD)

The Diagnostic Approach to Curriculum Development represents an effective strategy for assisting classroom teachers to better meet the special needs of a learner. DACD is a programmatic effort that uses data collected from formal and informal diagnostic tests to establish the curriculum for each learner. It is a program for working with learners with special needs in the regular classroom through special education services. The following is a detailed description of the components of the DACD program.

Desired Learner Outcomes or Objectives

The DACD program is developed around Desired Learner Outcomes (DLO) which are a form of behavioral objectives that are content-free and age-free. Each objective is written in a way that makes it possible to apply it to content areas such as industrial arts, social studies, mathematics, reading, language arts, and science. It can apply to four-year-olds as well as to sixteen-year-olds, and it is adaptable to cultural and experiential differences among learners.

DLOs are written with two main components; the first is the "standard" and the second is the "learner response." They are categorized into Development Aural Skills, Developmental Visual Skills, and Social/Emotional Development as illustrated in Table 1.

An examination of Table 1 shows that the DLO selected from the Developmental Aural Skills areas has implications for elementary school industrial arts. The input consists of a word -like: "Claw Hammer." The learner responds by pointing to the claw hommer in a group of three different tools (screw driver, claw hammer, tack hammer).

The example DLO selected for the Developmental Visual Skills area consists of a specific demonstration of a sequence of actions like: the teacher demonstrates procedures for the modeling of a sawdust clay sculpture. The learner responds by making a sawdust clay sculpture.

One of the major features of the program is the Social/Emotional Development area. For example, the learner has repeatedly refused to perform a task. The teacher, at this point in the learner's development, is interested in finding tasks that the learner will starts and complete. He/she is concerned with changing the learner's attitude about completing assignments on time or in the sequence required. This phase of the program is directly related to elementary industrial arts type activities which are usually highly stimulating. The instructor states commands to trace, color, or cut out objects. The learner responds by performing the set of commands. For example, the instructor gives the learner directions for making a piece of paper-mache jewelry. The learner follows the directions and makes the piece of jewelry. It is important to note that the purpose of the activity is to change the learner's attitude toward completing assignments on time and in the correct sequence.

The remaining Desired Learner Outcomes follow a similar format and how they relate to instruction will be developed in this section of the monograph. It is important to note there is not relationship to content or grade level in the stated DLOs. There is a direct relationship to the DLOs and the learner's diagnostic weaknesses and strengths. The relationship will be illustrated in the IEP for a hypothetical learner presented in Figure 3.

TABLE 1

A SAMPLE BLO FROM THE DEVELOPMENTAL AURAL SKILLS, DEVELOPMENTAL VISUAL SKILLS AND SOCIAL/EMOTIONAL DEVELOPMENT AREAS

DEVELOPMENTAL AREA	STANDARD	LEARNER RESPONSE
Aural Skills	A word	Identifies from among two or more choices the picture or object that represents meaning in standard
Visual Skills	A demonstration of sequence of actions	Performs the sequence after the instructure is finished
Social/Emotional	States commands to trace, color, or cut out objects	Performs the set of commands

Developmental Behaviors

The following list of Developmental Behaviors defines the classification of behavior statements know as Desired Learner Outcomes. By concentrating on these behavioral components, it is possible to create situations in which the performance of the learner with special needs is easily observed and assessed. It is also possible to vary the task levels at which different learners are working while developing a common learning outcome.

List of Desired Learner Outcomes

Developmental Aural Skills	Developmental Visual Skills	Social/Emotional Development
Aural Discrimination	Visual Discrimination	Peer
Aural Recognition	Visual Sequencing	Family
Aural Sequential/Memory	Visual Copying	Reactive Behavior
	Visual Memory	Task
Aural Concept Manipulation	Visual Figure-Ground	Perceptual-motor
Oral Production	Visual Association	
Aural Graphic Symbolization	Visual Classification	
	Visual Closure	
	Visual Graphic Symbolization	

Introduction to Diagnostic/Instructional System

The DACD program attempts to close the gap between the diagnostic identification of the status of the learner and the selection of instructional alternatives that follow from the disgnostic information. It is important that the program be cyclical in that the learner can move from the diagnostic component to the instructional component with the same ease as he/she can move from the instructional component to the diagnostic.

An effective diagnostic/instructional system that will meet the needs of learners with learning and behavioral problems should, minimally, consist of (1) a communication component, (2) an assessment component and (3) an instruction component.

The Communication Component

The communication system should provide a reliable linkage between the diagnostic/assessment component and the instructional component. It needs to show the user how instruction can cut across age levels and content areas. The component, to be effective, must provide the user with a means of moving from the diagnosis to the instruction and for making diagnosis more directly related to referral cases. The communication system needs to be simple, direct and flexible.

In the program under discussion, the **Behavior Resource Guide** (Cawley et al, 1974) is the communication link in the system. The Behavior Resource Guide (BRG) consists of four sections. The first is a set of charts that provides the user with intercorrelation between certain DLOs and selected psychoeducational tests. This section of the BRG allows the user to identify tests or subtest from major psychoeducational tests that can be used to measure a specific behavioral process. Table II presents the reader with an example of the correlation made between selected DLOs and Test.

TABLE II

AN EXAMPLE OF THE CORRELATION MADE IN THE *BEHAVIOR RESOURCE GUIDE* BETWEEN SELECTED DLO'S AND PSYCHOEDUCATIONAL TESTS

STANDARD	LEARNER RESPONSE	TEST	
Aural Recognition: a word	Identifies from among two or more choices the picture or object that represents meaning in standard	Minn. Aphasia: Recognizing Common Words	Stanford-Binet: Picture Vocabulary
Visual Sequencing: a demonstration of	Performs the sequence after the instructor is finished	Basic Concept: Pattern Awareness	Petersen: Ability to Produce Tapped Out Patterns

This correlation between Test and DLO is used to identify specific items which can be used to assess a behavior when there is a definitive referral. This section allows the user who has obtained certain information from a psychoeducational test to identify the Desired Learner Outcomes which were measured by the test. The second section of the Behavior Resource Guide provides the user with information that shows which of the items on a particular psychoeducational test measures a specific behavior. This procedure is a reversal of that performed in the DLO to Test section. The purpose of this section is to use the test information that may be in a learner's folder to identify the behavior measured by the test.

The third section is a set of charts that provides the user with an intercorrelation between the DLO used in section one and approximately one thousand commercially produced instructional materials. The DLO to Materials section enables the user who has identified a learner's behavior which needs to be modified to select instructional materials that can be used to assist in bringing about the desired learner outcome.

Table III present the reader with an example of the correlation made between selected DLOs and media. In the Resource Guide the 266 DLOs are correlated with approximately one thousand commercially prepared instructional programs or components of those programs. The sample instructional program listed for each DLO in Table III is only for illustrative purposes. In the actual program each DLO is correlated with a number of commercially prepared instructional programs produced by different companies.

It is imporant to note that the two instructional sample selected are only segments of a total instructional program. Correlations were made with an effort to select only the parts of the commercially prepared program that actually correlate with a particular DLO. For example, the DLO for Aural Discrimination has two commercially prepared instructional programs that are correlated with it. The program, "Auditory Discrimination" by Imperial International Learning Corp., suggests that the total program can be used to bring about the desired behavioral change in the learner; while the program, "Auditory-Speech Integration" by Follett Publishing Company, suggests that only the Target Sound in Related Word Group segment of the program can be used for this particular objective.

The fourth section allows the user to go from Materials to DLOs. Instructional materials are listed along with Desired Learner Outcome (DLO) that can be appropriately used to bring about the desired behavioral change.

Diagnostic Procedures as Related to Curriculum Development

The second component of the Diagnostic Approach to Curriculum Development is assessment. This component should have the capability of providing information that has instructional relevance, as well as being capable of being interpreted with general assessment models. Because the special needs of a typical learners are expressed in terms of learning and behavioral problems, assessment should provide information concerning these needs.

Formal and informal diagnostic testing should be used to make an assessment of the learner's strengths and weaknesses. For example, the learner was given the Behavior Skills Inventory (Level Two) and had dif-

TABLE III

AN EXAMPLE OF THE CORRELATION MADE IN THE *BEHAVIOR RESOURCE GUIDE* BETWEEN SELECTED DLO'S AND COMMERCIALLY PREPARED INSTRUCTIONAL PROGRAMS

STANDARD	LEARNER RESPONSE	MEDIA	
Aural Discrimination: language sounds	Identifies from among two or more choices the picture or object that contains a representation of the object with the same beginning, final or medial sound as standard	Imperial International Learning Corp: ***Auditory Discrimination*** Follett Publishing Company: ***Auditory-Speech Inegration,*** "Target Sound in Related Word Groups"	Follett Publishing Company: ***Auditory-Speech Integration*** "Target Sounds in Random Word Groups" Educational Unlimited Corporation: ***Auditory Perception Skills*** "Auditory Discrimination"
Visual Sequencing: a demonstration of sequence of actions	Performs the sequence after the instructor is finished	Gamco: ***Beads and Laces*** Ideal: ***Sequence Pictures***	Teaching Resources: ***Skill Builders/Marble Board*** Merrill: ***Fruit Basket Turnover***

ficulty with sections: Visual Graphic Symbolization, Visual Memory, Aural Graphic Symbolization, Aural Sequential Memory, Aural Production, Social/Emotional Development (Fails to engage in work or play with others, does not allow his products to be part of the display with others, and fails to complete assignments on time or in the sequence required). The question presented the classroom teacher is, "How can this information be used to develop and individualized education program for the learner?" This question is difficult to answer if we examine the present curriculum of many of our schools. To what areas of the curriculum are these difficulties related? Are they the responsibility of the total curriculum? The writers feel that they are the responsibility of the total curriculum and should be reinforced as the learner moves through reading, mathematics, industrial arts, language arts, social studies, art, music and physical education.

The **Behavior Resource Guide** can be used to assist in the development of the learner's individualized education progam (IEP) because it cuts across the total school curriculum. It is imporant to remember that the **Behavior Resource Guide** is the link between diagnosis and instruction. The sections of the **Behavior Skills Inventory** (Level Two) are correlated in the BRG with Developmental Visual Skills, Developmental Aural Skills, and Social/Emotional Development. Table IV illustrates the specific Desired Learner Outcomes which the sections of the **Behavior Skills Inventory** (Level Two) are measuring for a hypothetical learner. The information presented represents the learner's weakness as measured by the **Behavior Skills Inventory.**

The Diagnostic Approach to Curriculum Development is not without its problems. One major difficulty is that of test bias. We frequently find the learner's behavior to be a function of what we ask. Therefore, the selection of tests or other means of assessing a learner represents a probable bias in the diagnostic process. Careful consideration needs to be given to the selection of any diagnostic tool that is going to be used to describe a learner, and equal care is needed to use this diagnostic information to plan the learner's instructional program. This problem of selection bias permeates both observational systems and the test-dominated systems. In observational systems the learner is somewhat penalized becasue he/she can only be assessed in relation to the scale used and/or in relation to the knowledge possessed by the individual conducting the observation. Test-dominated systems tend to focus the attention of the examiner on the content of the test being used. The **Peabody Picture Vocabulary Test** (PPVT) involves fundamentally the same task requirements as the **Boston University Speech Discrimination Test.** Utilizing the same requirements, the **Boston University Speech Discrimination Test** purports to assess auditory discrimination whereas the **Peabody Picture Vocabulary Test** purports to assess factors such as receptive language and intelligence. For example, if the PPVT is administered to a learner, it is likely that the learner will be said to have PPVT related problems.

Another difficulty encountered in a diagnostic program is masking bias. This results when the assessment of behavior and the determination of strengths and weaknesses is masked by the presence of content. For example, if the learner is requested to state orally a set of words, as it appears in the **Behavior Skills Inventory** (Level Two), and fails to meet the criteria, what type of assessment does one make?

TABLE IV

AN EXAMPLE OF THE SPECIFIC DLO'S THAT THE DIFFERENT SUBTEST OF THE *BEHAVIOR SKILLS INVENTORY* (LEVEL TWO) ARE MEASURING FOR A HYPOTHETICAL LEARNER

BEHAVIOR SKILLS INVENTORY (LEVEL TWO)	DESIRED LEARNER OUTCOMES FOUND IN THE BRG TO CORRELATE WITH TEST ITEMS	
TEST STATION	**STANDARD**	**LEARNER RESPONSE**
Developmental Visual Skills		
Visual Graphic Symbolization	An object or pictures of an object	Marks from among two or more choices the word that names the object
Visual Memory	Two or more pictures of objects	State the names of the objects after the standard has been removed.
Developmental Aural Skills		
Aural Graphic Symbolization	A word(s)	Writes an acceptable definition for the word
Aural Sequential Memory	A set of directions	Draws a series of pictures to illustrate a sequence of events
Aural Production	A single word	State an acceptable definition using descriptive, functional, or classification terms
Social/Emotional Development		
Fails to engage in word or play with others	States directions to work cooperatively to construct an object(s) as indicated in the direction provided	Works cooperatively to construct an object(s) as indicated in the directions
Does not allow his products to be part of the display with others	State directions to assemble or participate in assembly of a sequence of objects into a larger object	Assembles or participates in assembly of a sequence of objects into a larger object
Fails to complete assignments on time or in the sequence required	States directions to work independently to construct an object(s) as indicated in the directions provided	Work independently to construct an object as indicated in the directions

1. "I gave George a set of words. He cannot orally state these words."

or

2. "I gave George a set of words. He cannot orally state words."

or

3. "George is low in one of the abilities which constitutes intelligence. He is slow."

The tendency to extrapolate definitions and concepts or classes of behavior from samples of behavior has more value when one of the major purposes of testing was to classify and/or label a learner for purpose of placement. However, Public Law 94-142 has changed the emphasis to one that requires the development of an individualized education program for the learner, a program that needs to have utility for both the regular classroom teacher and special education teacher. The diagnostic information collected should be more specific about the behavioral characteristics of the task. The learner with special needs is defined as having learning and/or behavioral problems and educators must be able to view the learner independently of content as well as within content.

The two levels of the Behavior Skills Inventory (BSI) developed by Cawley and others (1974) are criterion referenced tests which contain items that are directly linked to curricula plus additional diagnostic activities. The BSI is an attempt to develop a diagnostic tool that allows the assessment of the learner's behavioral problem independently of content as well as within content. The BSI as an inventory is similar to the everyday behavior of the diagnostically oriented teacher in that content and behavior are dealth with simultaneously and/or independently. It is essential that the assessment provide data and information which can be transmitted into instruction. The reliability demonstrated in assessing behavior in the different content areas should be reasonable support for the fact that the special needs of the learner can be realized during the total day and across the curriculum. Programming for learners with special needs can take place in a number of settings: a self-contained classroom where the classroom teacher is responsible for teaching the different subjects; a combination of the resource center and the regular classroom; a team arrangement where several teachers share in the management of the entire instructional program, and a departmental program where a learner has a different teacher for each subject. However, the success of the DACD depends upon the teachers having an understanding of how they can diagonse the special needs of the learner and bring about the desired learner outcome using the various content areas of the curriculum.

This component of the program depends upon the diagnostic skills and competencies of the special educator being interrelated with the curriculum skills and competencies of the general educator. This matching of resources extends to both the skill and competency level of the professional personnel who work with learners with special needs and to the interrelating of behaviors and curricula with commercial and teacher-prepared instructional materials.

Developing Behaviorally Based Instruction

Two of the three components of the DACD have been explored; the communication component with the BRG and the assessment component with the diagnostic test. The third and most important is the instructional

FIGURE 3

SAMPLE INDIVIDUALIZED EDUCATION PROGRAM FORM FOR A TYPOTHETICAL LEARNER

School District: Storrs Public Schools

Name: George (LAST) Gene (FIRST) G (MIDDLE)

Address: 294 George Road RFD #10

Storrs (CITY) Conn. (STATE) 06226 (ZIP CODE)

Current Placement: Special Class

Eligibility Certified: 5/1/78

Period of Individualized Program: 9/5/79 to 6/30/79

Date(s) of Meeting: 6/5/78, 6/12/78

Persons Present	Relationship to Child
Dr. George James	Principal
Dr. Walter Jones	Director of Special Education
Ms. Janice Davis	Teacher (regular classroom)
Ms. Mary Smith	Teacher (special education)
Mr. and Mrs. George	Parents

Evaluation: Assessment

STRENGTHS	DEFICITS
AURAL SKILL DEVELOPMENT: Can describe consequences of own behaivor Can name objects belonging to a class	AURAL SKILL DEVELOPMENT: Cannot write definitions of words Cannot draw pictures to illustrate sequence of events Cannot define words
VISUAL SKILL DEVELOPMENT: Can describe object after it has been removed Can name printed letters or numerals	VISUAL SKILL DEVELOPMENT: Cannot match words to objects Cannot name objects in a picture after standard has been removed.
SOCIAL/EMOTIONAL DEVELOPMENT: Does not use facial expressions or gestures to antagonize others Does not readily ridicule others or call them names Does not bump into, drop or intentionally break anything Is not confused with time-event relationships	SOCIAL/EMOTIONAL DEVELOPMENT: Fails to engage in work or play with others Does not allow his products to be part of the display with others Fails to complete assignments on time or in the sequence required

LONG RANGE GOALS	SHORT TERM OBJECTIVES	TEACHING MATERIALS/INSTRUCTIONAL STRATEGIES
To increase the use of aural skills in order that ideas can be communicated to others To increase the use of visual skills needed to enhance the learning process To increase interaction with peers, thus decreasing conflict with peers To develop good work habits	State definitions of common words Write definitions of common words Related events in sequence Match written words to objects Name object after they have been removed Work with others on cooperative projects Complete assignments on time or the sequence required	The resource teacher and the regular classroom teacher will develop a series of lesson guides with activites which can be used for learning about the desired behavior change in the learner. Both the resource teacher and the regular teacher will utilize tasks that cut across the content areas of the curriculum, but are directly related to the learners's identified learning problem. The learner's performance on the various tasks should be praised and every effort made to select enrichment tasks which will result in a high degree of success for the learner.

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Describe the extent to which the child will participate in regular education programs. (including physical education): The learner will report at the regular classroom teacher each day for homeroom, reading, science, language arts, mathematics, physical education, industrial arts and social studies. Total time spent in the regular classroom will equal approximately three and one-half hours. (For one hour each morning the learner will leave the regular classroom and go to the resource room for special help in aural and visual skill development. This session with the resource teacher will be devoted to the specific learning difficulties identified on the Behavior Skills Inventory.

Provide justification for education placement: Diagnostic test results and learner's performance is self contained special classroom.

Actual Placement: Regular classroom

List the criteria, evaluating procedures, and schedule for determining whether short term objectives are met: If the learner has difficulty with one task, an alternative task should be used to ensure success. During the first month the learner's on task success should be held above the level of chance. However, if the learner is requested to define a word, the response accuracy should increase to the ninety percent level within three or four months.

component which will be developed in this section, consists of the development of instructional activities that cut across the content of the curriculum and are interrelated with the Desired Learner Outcomes contained in the BRG.

As was illustrated in Table IV, the specific hypothetical learner was identified as having learning problems in Visual Graphic Symbolization, Visual Memory, Aural Graphic Symbolization, Aural Sequential Memory, Aural Production, Social/Emotional Development (Fails to engage in work or play with others, does not allow his products to be part of the display with others, and fails to complete assignments on time or in the sequence required). Figure 3 provides a sample individualized education program developed from the diagnostic information collected on the learner.

Putting the entire Diagnostic Approach to Curriculum Development in perspective can best be illustrated by presenting an administrative approach for working with handicapped children in a resource room. The resource room is a unit with one or more trained special education teachers. Children move in and out of the resource room where the teachers provide special tutorial services or other help.

Currently, the continuous and creative communication between the resource room teacher and the regular class teacher is limited. Behavioral teaching, via a system such as that described herein enables the resource room teachers to communicate to the regular classroom teacher, instructional aide and/or to other special education personnel. This process enables the classroom teacher to continue his/her focus upon curriculum and makes provisions for the handicapped child by presenting content via behavioral procedures and instructional approaches that circumvent specific disabilities or make provisions to reinforce the learning that takes place in the resource room. We know that approximately 80% or more of the handicapped learner's education may take place in the regular classroom. Therefore, information on the IEP needs to be directly related to the learner's experiences outside of special education.

Translating the IEP into Instruction

There are many different formats for preparing instructional guides or lesson plans. The writers have selected to use a comprehensive lesson guide to translate the IEP into instructional practices. The lesson guide outline presented in this monograph consists of seven items and is developed as a plan with specific tasks which can be used by regular classroom teachers, resource teachers, parents and others, to bring about the desired learner outcomes in an individual. The illustrated outline can be used to develop a series of lesson guides for each of the short-term objectives presented in the sample IEP.

LESSON GUIDE OUTLINE

1. **Desired Learner Outcome (DLO)**
   The short-term goal from the IEP is stated with the standard and learner response of the DLO. The DLO establishes the interrelationships between the instructional activities and the communication and diagnostic components of the program.
2. **Developmental Tasks**
   These tasks consist of enrichment activities listed in order of their difficulty and are used to bring about in the learner the desired behavioral change stated under the DLO item. Tasks are developed that use the various subject areas (industrial arts, science, language arts, art and physical education) of the school curriculum.
3. **Evaluative Criteria**
   The procedures used to evaluate the learner's performance on the various developmental, supplemental and home tasks are described under this item.
4. **Supplemental Tasks**
   Additional enrichment activities, listed in order of their difficulty, can be used if those under "Developmental Tasks" have not resulted in bringing about the desired behavioral change in the learner. These tasks, as those listed under the Development Tasks, should cut across the various subject areas of the school curriculum.
5. **New Ideas**
   New Enrichment activities that are developed as the individual works with the learner using either the Development or supplemental Tasks could be included here.
6. **Alternative Media**
   This item provides for the inclusion of commercially prepared instructional media, materials and sources that relate behaviorally or contextually to the stated DLO. It is under this section that instructional media and/or materials can be coded to the same behavior across different subject areas of the curriculum.
7. **Home Tasks**
   This item provides for the inclusion of extremely simple activities which has as their primary focus the expression of communication between the home and school. The intent of these tasks is to have the family become participants in the growth and education of the learner. It is important that each home task becomes an integral part of the learner's educational plan and that both the home and the school build a feeling of mutual cooperation in that regard.

The sample lesson guide presented in Figure 4 illustrates how the learner's special needs in one of the Developmental Aural Skills area are incorporated into the total school curriculum. Developmental and Supplemental Tasks 1 and 2 have utilized examples related to the area of elementary industrial arts. However, the reader with a little imagination could translate all of the Developmental, Supplemental and Home Tasks to elementary industrial arts type activities.

Figure 4

SAMPLE LESSON GUIDE
DEVELOPMENTAL AURAL SKILLS

Standard	Desired Learner Outcome
A single word	states an acceptable definition using descriptive, functional or classification terms.

DEVELOPMENTAL TASKS

1. FILM OR FILMSTRIP: After the class has viewed a film or filmstrip, the teacher can reinforce the stated behavior during a discussion period. Because the learner with this particular learning problem has been identified, the teacher will present a word and request him/her to define the word. This should be done in a manner not to single out the particular learner. For example after viewing a film or filmstrip on USING A CROSS-CUT SAW, the teacher will state a word such as set, teeth, and knife. The LEARNER will respond with a definition using descriptive, functional or classification terms using the contextural clues presented in the film or filmstrip.

2. READING ASSIGNMENT: After the learner has completed a reading assignment, the teacher will review with him/her important vocabulary words presented through the context of the material. They should be new vocabulary words, whose meaning is necessary to fully comprehend the material being read. For example after reading a book or chapter on careers in the health fields, the teacher would state words such as: Physical Therapist, Nurse, Doctor and R.N. The LEARNER will respond with a definition using descriptive, functional or classification terms using the contextural clues presented in the material read.

3. QUESTION TIME: As the learner is working on any type of experiment in class requiring the manipulation of objects, the teacher walks up to the learner and states a word whose definition has been made implicit through the experience. For example a science lesson from the ESS unit on Colored Solutions, words such as density, solution, suspension and mixing could be used. The learner will state the appropriate definition using descriptive, functional or classification terms.

EVALUATIVE CRITERIA

Given a stated word, the learner will provide an acceptable definition using descriptive, functional or classification terms.

SUPPLEMENTAL TASKS

1. WORD/DEFINITION GAME: The teacher will make a set of Word/Definition Cards. The words on these cards can be taken from vocabulary words used in any subject area. On one side of the cards are printed the word that the learner is to define. On the reverse side of the card is the definition of that word. For example words related to the activity of binding a book could be used. In this case the Word/Definition Cards would include words like signature, binder's board, cover, and press.

   Direction for playing game: Word/Definition Cards are placed in the center of a desk; player one takes a card and reads the word on it to the second player. The second player states an acceptable definition using descriptive, functional or classification terms. The first player will check the definition on the back of the card. If the definition given by player two is similar to what is on the card, he/she receives one point. However, if the definition is not at all similar the card is placed on the bottom of the deck and no point is scored. If the answer is correct the first player selects a second card and reads a word, play continues until the second player does not give the correct definition. Roles are reversed with the second player reading the word and the first player giving the definition using descriptive, functional or classification terms. Game continues until all cards in the deck have been responded to one time. The player with the highest score wins.

2. DEFINITION BEE: The teacher will divide the learners into two teams. The teacher will have a list of key words related to a specific subject area. For example, words presented to the learners while on a field trip to an automobile assembly plant. Key words could include assembly line, power brakes, undercoat and inspector. The teacher will state one word to both teams. Each team can work together for two minutes before stating a definition using descriptive, functional or classification terms. The opposing team states if the definition is correct or not. If they agree the definition is correct and it is correct they receive one point, while the team giving the definition receive five points. Game continues until all the words on the list have been completed. The team with the most points wins the game.

3. SELF INSTRUCTIONAL UNIT: The teacher will design a self instructional unit using vocabulary words that the learner will need to understand in order to comprehend a specific unit being studied. Each word is written on a 3 x 5 card, with the definition written on the opposite side and placed in a deck. The learner is given the deck of Word/Definition Cards and a tape recorder with a blank cassette.

   The learner will select a Word/Definition Card from the deck, when he/she is ready to state the definition, turns on the tape recorder and states the word, along with an acceptable definition using descriptive, functional or classification terms. After the student states the definition, the tape recorder is turned off and the opposite side

of the Word/Definition Card is checked. The definition does not have to be stated exactly as it appears on the card, however, it should be similar. If incorrect, the learner should record the correct definition before selecting another card from the deck. Completed recording and cards should be given to the teacher.

NEW IDEAS

New enrichment activities that are developed could be added to this section.

ALTERNATE MEDIA

1. Wordcraft Multimedia Vocabulary Programs
   Wordcraft/1 Vocabulary Program
   Produced by Communicad
   30 separate lessons on filmstrips and cassettes
   Key words are introduced in the context of stories. Simple definitions of each word are then substituted in their place within the sentence to reinforce the meaning.
2. The Challenge Series Multimedia Sets
   Produced by Insight Media Programs
   6 sets, each with filmstrip, record or cassette, hardbound or paperback book, and teachers guide.
   Through action stories reluctant readers will build vocabulary, reading speed, and comprehension skills.
3. Everday Language Skills Series
   Grade 3 #611 especially No. 4
   Instructor Curriculum Materials.
4. Vocabulary Development
   A self instructional modalities approach
   10 lessons on 5 cassettes
   J. J. Hammet & Co.
5. Cross Words for Beginners
   Code 63535
   IDEAL
   Supplemented with teacher reading the definition, and child saying the word that has been defined before he can fill the spaces.
6. Password
   Milton Bradley
7. Scrabble for Juniors
   Milton Bradley
   Supplemented with teacher directions that before the child can receive a marker for his word he must define it.

HOME TASKS

1. GROCERY STORE VISIT
   On a trip to the grocery store, the individual accompanying the learner could state the names of items and request the learner to define it using descriptive, functional or classification terms.

   PASSWORD GAME
   Send home a Password Game with the learner and request that someone at home play the game with him/her. Words the learner has difficulty with should be recorded. Game cards can be prepared by the teacher using words the learner should have in his/her vocabulary.
2. CAR TRIP
   As the family is taking a car trip, they can play and define the word game. Each player has an opportunity to state a word, while the others try to present an acceptable definition using descriptive, functional or classification terms. The player who provides the acceptable definition is given the opportunity to state the new word.

Industrial Arts for the Handicapped Child

Elementary industrial arts provides activities which when used properly can stimulate, enrich, and extend the learning of the special needs child being educated in the regular classroom. This instructional strategy is important and vital for handicapped children if they are to obtain some degree of success in the regular classroom. These activities provide the learner with an opportunity to study the 3 R's in a three dimensional perspective, because words, pictures, and ideas can be given form, detail, and color. Furthermore, these activities can be used to clarify instruction in other content areas for handicapped children, serving as a kind of intellectual stimulus. It provides a technique by which other content within the curriculum can be applied or brought to bear in a pertinent and realistic manner. Often these experiences gradually shape instructional stategies to a renewed emphasis on the effectiveness of first hand experiences for handicapped children in acquiring the necessary basic skills. Elementary industrial arts also contributes to the personal and interpersonal development of handicapped children and assists them by providing materials and activities to interpret our technological environment.

The use of these instructional strategies and/or industrial arts activities do not automatically guarantee a successful learning experience for the handicapped learner in a regular classroom environment. The classroom teacher needs to analyze these activities, as well as the weaknesses and strengths of the individual child. Wisely used, these activities will provide the special need learners with a learning environment which fosters exploration and reaction to technological environment. Thus, activities common to elementary industrial arts encourage handicapped children to use the basic skills of reading, writing, listening, speaking, and interrelating to seek more information related to effective living in the home, school and community.

Relating Industrial Arts Activities to IEP Objectives

A review of the IEP presented in Figure 2 for a specific learner, indicates that one of the short-term objectives in the Social/Emotional Development area is to have the learner work with others on a cooperative project. This behavior falls into the social/emotional area. For example, the learner has repeatedly refused to play or work with other children. The teacher, at this point in the learner's growth and development, may not be interested in how the finished project looks or whether or not the learner is very creative. The teacher is concerned with changing the learner's attitude about working cooperatively with others.

The classroom teacher utilizing industrial arts type activities may want to analyze some upcoming activities to determine ways to use these experiences to gradually modify the learner's behavior toward working cooperatively with others. The first activity may be a simple line production unit, where the learner constructs one small part of a product to be used later in a total project. The theory underlying this approach is to foster in the learner a willingness to contribute items to a group activity without actually working cooperatively with other individuals. This approach may require the learner to work on a number of activities where his/her interaction with other children gradually increases over a period of

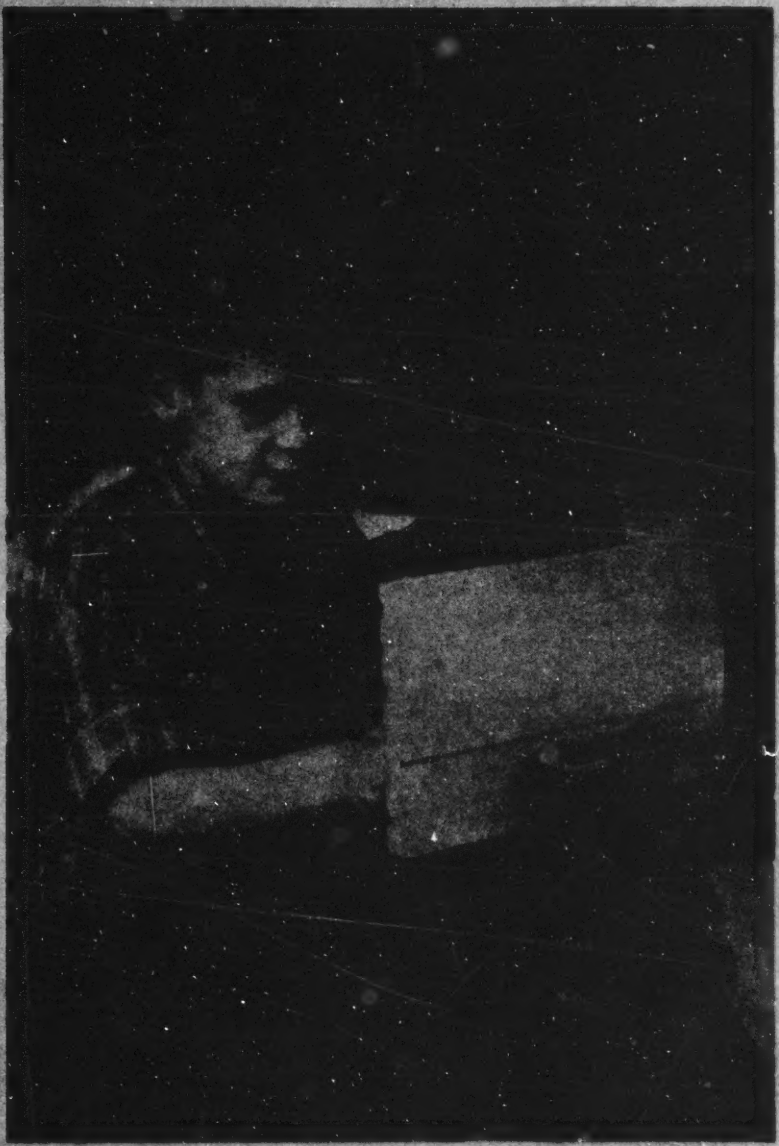

FIGURE 5

Child is working alone on one part, which will be used in the construction of a larger group project.

time. The teacher should remember the stated short-term goal for this specific behavioral change "is for the individual to work cooperatively on a project."

A second activity could be a bulletin board on career education where each child is requested to draw a picture of an individual performing the type of work they would like to do when they become an adult. The children work independently of one another on their drawings. When drawings are completed, the teacher groups children and discusses how the finished pictures should be displayed. This opportunity is utilized to slowly have the children interact with one another about a topic of specific interest. Children have a tendency to be less inhibited and more open to express themselves about things in which they are interested.

A third activity could be to have the children build a model of a local community using the techniques of solid block construction. This acitivity requires group planning before the activity is started. The teacher should remember to use various instructional and/or questioning strategies to actively involve the learner in the planning sessions. The actual construction will only require a small degree of interaction between children. However, it will require the sharing of materials, tools and working areas.

A fourth activity could be building an animal cage using frame construction. This activity requires individuals to work very closely together in planning, as well as cooperatively in using tools, materials and equipment. It may be necessary for one child to hold the materials for another during the cutting and/or fastening processes.

The type of behavioral change being discussed may require six to eight months or longer, but the teacher's responsibility is to move the child from experience to experience until he/she is willing to contribute or participate with others in the planning and construction of an object. The desired behavioral change has been brought about when the learner becomes a willing and active participant in group acitivities.

These activities represent only suggestions of how one of the short-term objectives listed on the IEP can be accomplished through using industrial arts type activities. The tasks incorporated in the Sample Lesson Guide presented earlier also illustrate procedures for bringing about the desired behavioral change stated in another of the short-term goals.

Another of the short-term objectives on the IEP for the hypothetical learner, Figure 2, is to relate events in sequence. This skill is important to children working on industrial arts activities. The concrete nature of industrial arts activities may be beneficial in bringing about the desired behavioral changes in the learner, such as the ability to relate events in sequence. The teacher can move from concrete type activities to those which are abstract in nature. It is important to remember that when working with handicapped children the desired behavioral changes will not usually result from exposure to one or two activites. The desired change in behavior may require five to six months of repeated exposure to activities that require the learner to relate events in sequence. When working with handicapped children the evaluation process requires one to look for small increments of growth.

The teacher can demonstrate the procedure for construction a model structure using solid block construction. During the demonstration the teacher may stop after a selected procedure and request the learner to demonstrate the procedure, such as the construction of the gable—end of a

FIGURE 6

Children are working together to construct a solid block structure. This activity requires cooperation between the two children. One holding the material and sighting the straightness of the hand drill while the second is operating the hand drill and sighting for straightness.

house. The learner needs to select tools, materials and equipment and use them in the correct sequence in the construction of a gable—end of a house.

Remember that the learner was diagnosed as having weakness of relating events in sequence. In fact, this may be one of the reasons the learner has a past history of having diffuculty with industrial arts activities which require relatings events in sequence. If the teach has evidence to substantiate this learning difficulty, care must be taken when presenting materials which require relating events in sequence. Instructional strategies should be developed which will enhance the learner's ability to relate events in sequence.

A similar approach could be used to bring about the desired behavioral change for each of the short-term objectives listed on the IEP for the hypothetical learner. They illustrate how the content of industrial arts can be used to develop the process skills of the handicapped learner. Most important it shows how the short-term objectives for the learner are fostered and/or developed in the regular classroom.

FIGURE 7

Children are working together to construct parts of an animal cage. Activity requires cooperation between the two children, one holding the material, while the second operates the hand saw.

CONCLUSIONS

The purpose of this monograph was to answer the following:

What are the educational implications of Public Law 94-142 for classroom teachers, parents and children? What implications does the Law have for the teaching of elementary Industrial Arts?

To review, the implications of the Law were discussed, and the Act's administrative design was presented. The major Provisions contained in the Law, including Child Identification, Personnel Development, Procedural Safeguards and Individualized Education Program (IEP) were explored.

An approach to curriculum development has been suggested which moves away from age-in-grade placement. The recommended approach looks at the individual learner's diagnosed strengths and weaknesses. For example, if the learner has difficulty visually discriminating between objects, this difficulty transcends the total school curriculum and therefore, effects the learner's performance in all content areas. The learner's identified learning problem does not disappear as the child moves from Industrial Arts to Reading, or from any specialist to specialist, and may present a stumbling block which interferes with his/her progress in school.

The learner's needs, what to do about these needs, and instructional suggestions have been interwoven into an IEP and elaborated on in a sample lesson guide. Also included is a narrative description of how elementary industrial arts activities are used to change a learner's behavior.

These examples illustrated how diagnostic information can be implemented to develop an IEP for a hypothetical learner and then translated into instruction practices for this learner.

The monograph has illustrated how existing curriculum patterns and instructional practices can be adjusted to meet the special needs of a learner. It has also attempted to show how the special needs of the handicapped learner can be met using content which comprises the curriculum of our schools. What must be examined is this content and how it can be adapted to meet the needs of all learners.

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